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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,077	07/12/2001	Jan Willem Aarts	NL 000403	1891

24737 7590 11/04/2004

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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT PAPER NUMBER

2652

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/904,077

Applicant(s)

AARTS ET AL.

Examiner

Peter Vincent Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 10, 2004 has been entered.

Drawings

2. The marked-up drawings filed on March 31, 2004 have been considered. However, replacement drawing sheets labeled "Replacement Sheet" are also required in addition to the marked-up drawings. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The disclosure is objected to because there are no appropriate subheadings for each section of the specification, e.g., "Background of the Invention" on page 1, as noted on the non-final Office Action mailed on December 31, 2003.

5. Claims 1-8 are objected to because of the following informalities:

Claim 1, last line: "their respective of" should be deleted.

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Claims 2-8 are dependent upon base claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-15 rejected under 35 U.S.C. 102(b) as being anticipated by Schell et al. (hereafter Schell) (US 6,058,081).

In regard to claim 1, Schell discloses an optical scanning device (figure 26) for scanning an information layer of an optically scannable information carrier, which scanning device is provided with a radiation source, an optical lens system (2-12) with an optical axis for focusing a radiation beam supplied, in operation, by the radiation source into a scanning spot on the information layer, and an actuator (figure 26) by means of which the lens system can be displaced with respect to a stationary part of the scanning device at least in a direction parallel to the optical axis, the actuator being provided with an electric coil system (2-16, 2-18 & 2-20), which is arranged in a fixed position with respect to the lens system, and a magnetic system (2-22 & 2-24) which is arranged in a fixed position with respect to the stationary part, characterized in that the magnetic system, viewed parallel to an X-direction extending perpendicularly to the optical axis (Z), is arranged in its entirety next to and outside the coil system, the magnetic system comprises a first part (2-22) and a second part (2-24) on opposite sides of the optical axis, the first part and the second part of the magnetic system each comprise at least a first and a

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second permanent magnet (see magnets labeled $S \rightarrow N$ and $N \leftarrow S$), at least a part of the coil system being situated in a magnetic stray field of the magnetic system (see also figure 32); and the coil system further comprises a portion of the coil system (2-16) situated symmetrically with respect to a junction of the first and the second magnet for both the first and second part of the magnetic system, said portion being situated between a pair of portions of the coil system (2-18 & 2-20) arranged directly opposite, respectively, the first and second parts of the magnetic system such that the first and second part of the magnetic system extend entirely across the pair of portions of the coil system.

In regard to claim 2, Schell discloses that the magnetic system comprises the first part (figure 26, 2-22) and the second part (2-24) which are each arranged, in their entirety, next to and outside the coil system near, respectively, a first side of the lens system and a second side of the lens system which, viewed in a direction parallel to the X-direction, is opposite the first side, the pair of portions of the coil system having a first part (2-18) of the coil system arranged near the first side, and a second part of the coil system (2-20) arranged near the second side, being situated, at least partly, in a magnetic stray field (see also figure 32) of, respectively, the first part and the second part of the magnetic system.

In regard to claim 3, Schell discloses that the first part and the second part of the magnetic system, and the first part and the second part of the coil system, viewed in a direction parallel to the X-direction, are symmetrically arranged (see figure 26) with respect to the optical axis (Z).

In regard to claim 4, Schell discloses that the first and the second permanent magnet (figure 26, magnets labeled $S \rightarrow N$ and $N \leftarrow S$) which, viewed in a direction parallel to the optical

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axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction; the first part and the second part of the coil system each comprise at least an electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first and said second part of the coil of the first part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the first part of the magnetic system, and said first and said second part of the coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the second part of the magnetic system.

In regard to claim 5, Schell discloses that the first and the second permanent magnets (figure 26) which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to said X-direction, while the coil system comprises at least one electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first part and said second part of the coil being arranged, viewed in a direction parallel to the X-direction, directly opposite, respectively, one of the two magnets of the first part of the magnetic system and one of the two magnets of the second part of the magnetic system.

In regard to claim 6, Schell discloses that the X-direction (Y on figure 26) extends transversely to an information track present on the information layer, and in that the first and the second permanent magnets which, viewed parallel to the optical axis, are arranged next to each

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other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to the X'-direction opposite to the X-direction, while the coil system comprises an electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said parts of the coil being arranged, viewed in a direction parallel to the optical axis, in a transition region of the two magnets (see also figure 32) of, respectively, the first part and the second part of the magnetic system.

In regard to claim 7, Schell (figure 26) discloses that the X-direction extends at least substantially parallel to an information track present on the information layer, and in that the first part and the second part of the coil system each comprise at least one further electric coil from said portion having a first part and a second part, which are provided with wire portions extending parallel to the optical axis, the first part and the second part of the further coil of the first part of the coil system, viewed in a direction parallel to the X-direction being arranged directly opposite, respectively, the first magnet and a magnetizable part (figure 28, element 2-80) of the first part of the magnetic system, which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet, and the first part and the second part of the further coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet and a magnetizable part of the second part of the magnetic system, which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet.

In regard to claim 8, Schell discloses an optical player comprising an optical scanning device (figure 26) for scanning an information layer of an optically scannable information carrier, and a table which can be rotated about an axis of rotation, on which table the information carrier can be placed; said scanning device being provided with a radiation source, an optical lens system with an optical axis for focusing a radiation beam supplied, in operation, by the radiation source into a scanning spot on the information layer, and an actuator by means of which the lens system can be displaced with respect to a stationary part of the scanning device, at least in a direction parallel to the optical axis, and a displacement device (figure 28, element 2-82) by which at least the lens system of the scanning device can be displaced, with respect to the axis of rotation, mainly in a radial direction.

In regard to claim 9, Schell discloses an optical scanning device (figure 26) having a radiation source providing a radiation beam, an optical lens system with an optical axis for focusing the radiation beam into a scanning spot on an information layer, and an actuator that can displace the lens system, the actuator being provided with an electric coil system (2-16, 2-18 & 2-20), which is arranged in a fixed position with respect to the lens system, and a magnetic system (2-22 & 2-24) which is arranged in a fixed position with respect to a stationary part, comprising: a first part (2-22) and a second part (2-24) to the magnetic system arranged on opposite sides of the optical axis, the first part and the second part of the magnetic system each comprise at least a first and a second permanent magnet (see magnets labeled $S \rightarrow N$ and $N \leftarrow S$), at least a part of the coil system being situated in a magnetic stray field of the magnetic system (see also figure 28); a portion of the coil system situated symmetrically with respect to a junction of the first and the second magnet for both the first and second part of the magnetic system, said

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portion being situated between a pair of portions of the coil system arranged directly opposite, respectively, the first and second part of the magnetic system such that the first and second part of the magnetic system extend entirely across the pair of portions having wires extending perpendicular to the optical path; and the magnetic system, viewed parallel to an X-direction extending perpendicularly to the optical axis, is arranged in its entirety next to and outside the coil system.

In regard to claim 10, Schell discloses the first part (2-22) and the second part (2-24) to the magnetic system which are each arranged next to and outside the coil system near a first side of the lens system and a second side of the lens system which is opposite the first side of the lens system; the pair of portions of the coil system having a first part (2-18) and a second part (2-20), the first part of the coil system arranged near the first side, and the second part of the coil system arranged near the second side.

In regard to claim 11, Schell discloses that the first part and the second part of the magnetic system, and the first part and the second part of the coil system are symmetrically arranged (see figure 26) with respect to the optical axis (Z).

In regard to claim 12, Schell discloses that the first part and the second part of the magnetic system each comprise the first and the second permanent magnet (figure 26, magnets labeled $S \rightarrow N$ and $N \leftarrow S$) having respective directions of magnetization extending parallel to the X-direction and parallel to an X'-direction opposite to the X-direction, while the first part and the second part of the coil system each comprise at least an electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first and said second part of the coil of the first part

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of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the first part of the magnetic system, and said first and said second part of the coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the second part of the magnetic system.

In regard to claim 13, Schell discloses that the first part and the second part of the magnetic system each further comprise the two permanent magnets (figure 26, magnets labeled $S \rightarrow N$ and $N \leftarrow S$) which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a respective direction of magnetization parallel to the X-direction and parallel to an X' -direction opposite to said X-direction, while the coil system comprises at least one electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first part and said second part of the coil being arranged, viewed in a direction parallel to the X-direction, directly opposite, respectively, one of the two magnets of the first part of the magnetic system and one of the two magnets of the second part of the magnetic system.

In regard to claim 14, Schell discloses that the X-direction (Y on figure 26) extends at least substantially parallel to an information track present on the information layer, and in that the first part and the second part of the coil system each comprise at least one further electric coil from said portion having a first part and a second part, which are provided with wire portions extending parallel to the optical axis, the first part and the second part of the further coil of the first part of the coil system being arranged directly opposite, respectively, the first magnet and a magnetizable part (figure 28, element 2-80) of the first part of the magnetic system, which

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magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet, and the first part and the second part of the further coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet and a magnetizable part of the second part of the magnetic system, which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet.

In regard to claim 15, Schell discloses an optical player comprising an optical scanning device (figure 26) for scanning an information layer of an optically scannable information carrier, and a table, which can be rotated about as axis of rotation, on which table the information carrier can be placed, said scanning device being provided with a radiation source, an optical lens system (2-12) with an optical axis for focusing a radiation beam supplied, in operation, by the radiation source into a scanning spot on the information layer, and an actuator by means of which the lens system can be displaced with respect to a stationary part of the scanning device, at least in a direction parallel to the optical axis, and a displacement device (figure 28, element 2-82) by means of which at least the lens system of the scanning device can be displaced, with respect to the axis of rotation (Z), mainly in a radial direction.

Response to Arguments

8. The rejection of claims 1-15 under 35 U.S.C. 102(b) under Ikagame et al. (US 5,208,703) has been withdrawn because independent claims 1 & 9 have been amended so that the claimed portion of the coil system is "situated symmetrically with respect to a junction of the first and the second magnet for both the first and second part of the magnetic system", which symmetry is not met by the arrangement of the coil system and the first and second magnets of Ikagame et al.

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9. The applicant submits that the amended version of Claim 1 is allowable over the cited reference, Schell et al. (US 6,058,081). The examiner disagrees. Claim 1, as amended, recites that the magnetic system is formed on either side of the optical axis such that each side has at least two magnets and a coil system that is arranged symmetrically with respect to the junction of the two magnets on both sides. Figure 26 clearly shows a symmetrical arrangement of the magnet and coil systems with respect to a line/plane dividing the magnets labeled $S \rightarrow N$ and $N \leftarrow S$. Claim 1, as amended, also defines a pair of coils arranged directly opposite the magnetic system on either side of the optical axis such that the first and second parts of the magnetic system extend entirely across the pair of portions of the coil system. Figure 26 clearly shows that the first and second parts of the magnetic system (2-22 & 2-24, respectively) extend entirely across the part of portions of the coil system (2-18 & 2-20).

Conclusion

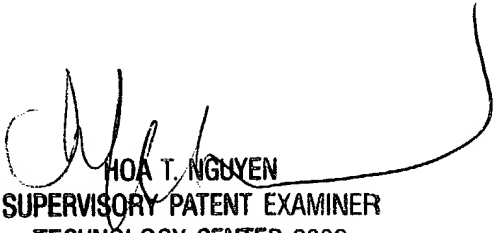
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 703-305-8980. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 703-305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
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